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How drugs from marine sources are isolated and produced

Aquaculture Department, Southeast Asian Fisheries Development Center

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<http://hdl.handle.net/10862/2481>

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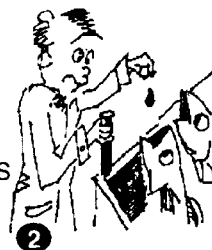
HOW DRUGS FROM MARINE SOURCES ARE ISOLATED AND PRODUCED



PRELIMINARY ISOLATION
Drug suggested by analogy or
general screening program

SCREENING AND DISCOVERIES

Unique or potentially useful
biological activity is found



SOURCE MATERIALS

Obtain enough material to isolate and
characterize active compound(s)



**CHARACTERIZATION
AND SYNTHESIS**

EFFECTIVE CHEMOTHERAPY

Test for efficiency in treatment of
animals



PHARMACOLOGICAL STUDIES

Testing for drug activity and safety

**MASS SCALE
SYNTHESIS**



GOVERNMENTAL APPROVAL

- Disclosure of complete drug
source and
manufacturing information
- Preclinical results disclosed
- Future research plans and other
supporting data



CLINICAL EVALUATION

- Testing with human volunteers to determine
metabolism, absorption and elimination,
side effects, safe dose range,
preferred method of administration.
Obtain therapeutic index (value versus
hazards).
- Initial diagnosis test
- Outside controlled tests

MASS PRODUCTION
Economic, governmental,
technical limitations apply



MARKETING PROCEDURES

Economic, governmental,
technical limitations apply

Illustrated by I. Tendencia. Reference: MT Doig III, DF Martin, GM Padilla. 1973. *Marine bioactive agents: chemical and cellular correlates*, p. 6. In: DF Martin and GM Padilla (eds). *Marine Pharmacognosy Action of Marine Toxins at the Cellular Level*. Academic Press, New York. 317 p.